

Cohen, Dippell and Everist, P.C.

ENGINEERING STATEMENT
RE REQUEST FOR
SPECIAL TEMPORARY AUTHORITY
ON BEHALF OF
WLIO(TV), LIMA, OHIO
CHANNEL 8 14.8 KW MAX DA ERP 148 METERS HAAT
SEPTEMBER 2018

Introduction

This engineering statement has been prepared on behalf of Lima Communications Corporation, to accompany the request for Special Temporary Authority ("STA"). Lima Communications Corporation is licensed to operate Television Station WLIO(TV) on VHF Channel 8 with an effective radiated power of 27.5 kW at a height above average terrain of 148 meters.

Present

The reason for this STA is the main transmitter has for the past several weeks operated at reduced power. The manufacturer of that transmitter is no longer in business. The FCC has been advised of this reduced power operation. The main transmitter operation has several days ago sustained another component failure rendering the transmitter inoperable. Successful efforts having been made to restore the operation of the main transmitter to operate with a transmitter output of 54%. The FCC will be informed immediately if there is any change..

WLIO-DT Tower

The DTV antenna is side-mounted on an existing tower having a total overall structure height above ground of 167.3 meters. The existing transmitter site is located at 1424 Rice Avenue, Lima, Ohio. The tower has been registered under the number 1014519.

The geographic coordinates of the existing tower are as follows:

North Latitude: 40° 44' 51"

West Longitude: 84° 07' 55"

NAD-27 (License)

North Latitude: 40° 44' 51.2"

West Longitude: 84° 07' 54.3"

NAD-83

Equipment Data

Antenna: ERI, Type ETH-CH8-8 antenna with 1.0° electrical beam tilt

Transmitter: Axcera Innovator 5K, Model HHV005KAD, current power output power
2.28 kW (54%)Power Data

Transmitter Power Output	2.28 kW	3.58 dBk
Filter Loss (on file)	94.4%	0.25 dB
Power After Filter	2.15 kW	3.33 dB
Transmission Line Loss (on file) (453 ft. of ERI HJ8-50 3" Air Helix)	81.34%	0.897
Input Power to Antenna	1.75 kW	2.43 dBk
Antenna Power Gain (on file)	8.47	9.28 dB
Effective Radiated Power	14.8 kW	11.7 dBk